

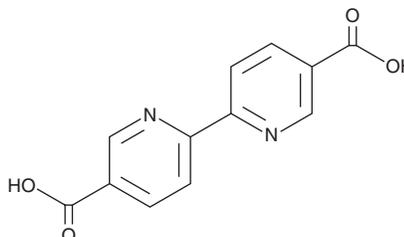
# PRODUCT INFORMATION



## 2,2'-Bipyridine-5,5'-dicarboxylic Acid

Item No. 29472

**CAS Registry No.:** 1802-30-8  
**Synonyms:** 2,2'-Bipyridine-5,5'-dicarboxylate,  
PD 086195  
**MF:** C<sub>12</sub>H<sub>8</sub>N<sub>2</sub>O<sub>4</sub>  
**FW:** 244.2  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 249, 298 nm  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

2,2'-Bipyridine-5,5'-dicarboxylic acid is supplied as a solid. A stock solution may be made by dissolving the 2,2'-bipyridine-5,5'-dicarboxylic acid in the solvent of choice, which should be purged with an inert gas. 2,2'-Bipyridine-5,5'-dicarboxylic acid is slightly soluble in DMSO.

2,2'-Bipyridine-5,5'-dicarboxylic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 2,2'-bipyridine-5,5'-dicarboxylic acid should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 2,2'-Bipyridine-5,5'-dicarboxylic acid has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

2,2'-Bipyridine-5,5'-dicarboxylic acid is a heterocyclic building block.<sup>1,2</sup> It has been used in the synthesis of metal-organic frameworks for water oxidation, organic photocatalysis, and carbon dioxide reduction.

### References

1. Bloch, E.D., Britt, D., Lee, C., *et al.* Metal insertion in a microporous metal-organic framework lined with 2,2'-bipyridine. *J. Am. Chem. Soc.* **132(41)**, 14382-14384 (2010).
2. Wang, C., Xie, Z., deKrafft, K.E., *et al.* Doping metal-organic frameworks for water oxidation, carbon dioxide reduction, and organic photocatalysis. *J. Am. Chem. Soc.* **133(34)**, 13445-13454 (2011).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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